IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): An Ag sputtering target,

wherein the Ag sputtering target has three-dimensional fluctuation of grain sizes not more than 18%; and

wherein the three-dimensional fluctuation of the grain sizes measured by:

exposing a plurality of sputtering surfaces by slicing the Ag sputtering target in planes parallel to a sputtering starting surface,

selecting a plurality of locations on each of the exposed sputtering surfaces, and

measuring grain sizes D at all the selected locations of all the exposed sputtering surfaces by executing i) to iv) below,

i) taking an optical micrograph of the selected location,

ii) drawing a plurality of straight lines equal to or more than four in a grid pattern on the obtained micrograph,

iii) investigating a number n of grain boundaries on each of the straight lines, and calculating a grain size d (unit: μm) for each of the straight lines on the basis of the following formula:

$$d=L/(n \cdot m)$$

wherein

L: length of the straight line,

n: number of the grain boundaries on the straight line,

m: magnification of the optical micrograph, and

iv) calculating the grain size D at the selected location as an average value of the grain sizes d for the plurality of straight lines;

calculating values A1 and B1 using the formula below and based on the results of measurement of the grain sizes D at all the selected locations of all the exposed sputtering surfaces:

$A1 = (D_{max}-D_{ave})/D_{ave}\times 100$ (%)

$B1 = (D_{ave}-D_{min})/D_{ave}\times 100$ (%)

wherein

D_{max}: maximum value among the grain sizes D at all the selected locations

D_{min}: minimum value among the grain sizes D at all the selected locations

D_{ave}: average value of the grain sizes D at all the selected locations; and

selecting larger one of the values A1 and B1 as the three-dimensional fluctuation of the grain sizes.

Claim 2 (Original): The Ag sputtering target according to claim 1, wherein the average grain size D_{ave} is not more than 100 μm, and the maximum grain size D_{max} is not more than 120μm.

Claim 3 (Original): An Ag sputtering target,

wherein the Ag sputtering target has three-dimensional fluctuation of X-ray diffraction peak intensity ratios (X_1/X_1) not more than 35%; and

wherein the three-dimensional fluctuation of the X-ray diffraction peak intensity ratios (X_2/X_1) is measured by:

exposing a plurality of sputtering surfaces by slicing the Ag sputtering target in planes parallel to a sputtering starting surface;

selecting a plurality of locations on each of the exposed sputtering surfaces;

measuring the X-ray diffraction peak intensities of the Ag at all the selected locations of all the exposed sputtering surfaces;

calculating the X-ray diffraction peak intensity ratio (X_2/X_2) for each of the selected locations, the X-ray diffraction peak intensity ratio (X_2/X_2) being defined as the ratio of the largest Ag X-ray diffraction peak intensity X_1 in relation to the second largest Ag X-ray diffraction peak intensity X_2;

calculating values A2 and B2 using the formula below and based on the X-ray diffraction peak intensity ratios (X_2/X_1) at all the selected locations of all the exposed sputtering surfaces,

$A2 = (R_{max}-R_{ave}) / R_{ave} \times 100\ (\%)$

$B2 = (R_{ave}-R_{min}) / R_{ave} \times 100\ (\%)$

wherein

R_{max}: maximum value among the X-ray diffraction peak intensity ratios (X_2/X_1) at all selected locations

R_{min}: minimum value among the X-ray diffraction peak intensity ratios (X_2/X_1) at all selected locations

R_{ave}: average value of the X-ray diffraction peak intensity ratios (X_2/X_1) at all selected locations; and

selecting the larger one of the values A2 and B2 as the three-dimensional fluctuation of the X-ray diffraction peak intensity ratio (X_2/X_1).

Claim 4 (Currently Amended): An Ag sputtering target according to ~~any one of claims 1 to 3~~ claim 1, having a disc-like shape.

Claim 5 (Currently Amended): An Ag sputtering target according to ~~any one of claims 1 to 4~~ claim 1, formed by Ag alloy containing rare-earth metal.

Claim 6 (Original): An Ag sputtering target according to claim 5, wherein a content of the rare-earth meal is not more than 5 atomic percent (not including 0 atomic percent).

Claim 7 (Currently Amended): A method for producing the Ag sputtering target according to ~~any of claims 1 to 6~~ claim 1, comprising:

conducting a cold forging operation one or more times, the cold forging operation comprising,

solid forging an Ag columnar mass so as to be extended in a axial direction thereof, and

cold upsetting the solid forged Ag columnar mass in the axial direction while maintaining a columnar shape of the solid forged Ag columnar mass; and

slicing a cold-worked columnar mass obtained by the cold forging operation in rounds after being heat treatment.

Claim 8 (Currently Amended): A method for producing an Ag thin film, ~~compriing~~ comprising:

forming the Ag thin film on a substrate by sputtering using the Ag sputtering target according to ~~any one of claims 1 to 6~~ claim 1.

Claim 9 (New): An Ag sputtering target according to claim 3, having a disc-like shape.

Claim 10 (New): An Ag sputtering target according to claim 3, formed by Ag alloy containing rare-earth metal.

Claim 11 (New): An Ag sputtering target according to claim 10, wherein a content of the rare-earth meal is not more than 5 atomic percent (not including 0 atomic percent).

Claim 12 (New): A method for producing an Ag thin film, comprising:

forming the Ag thin film on a substrate by sputtering using the Ag sputtering target according to claim 3.